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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,846	10/29/2003	Boris Yanovsky	4619.P027	9304

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EXAMINER
HENEGHAN, MATTHEW E

ART UNIT	PAPER NUMBER
2134	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/697,846	YANOVSKY, BORIS
	Examiner	Art Unit	
	Matthew Heneghan	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>29 October 2003</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-51</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-12,15,17,18 and 21-51</u> is/are rejected.

7) ☒ Claim(s) <u>13,14,16,19 and 20</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>29 October 2003</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>12/10/03, 9/3/04, 9/19/05</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-51 have been examined.

Information Disclosure Statement

2.   The following Information Disclosure Statements in the instant application have

been fully considered:

   IDS filed 10 December 2003.

   IDS filed 3 September 2004.

   IDS filed 19 September 2005.

Drawings

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description: figure 9, item 912. Corrected drawing sheets in compliance with 37 CFR

1.121(d), or amendment to the specification to add the reference character(s) in the

description in compliance with 37 CFR 1.121(b) are required in reply to the Office action

to avoid abandonment of the application. Any amended replacement drawing sheet

should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. Each drawing sheet submitted after the filing

date of an application must be labeled in the top margin as either "Replacement Sheet"

or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

examiner, the applicant will be notified and informed of any required corrective action in

the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4.   Applicant is advised that should claim 7, 9, 11, 34, 36, and/or 38 be found

allowable, claims 22, 23, 24, 49, 50, and 51, respectively, will be objected to under 37

CFR 1.75 as being a substantial duplicate thereof. When two claims in an application

are duplicates or else are so close in content that they both cover the same thing,

despite a slight difference in wording, it is proper after allowing one claim to object to the

other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

5.   Claims 28-51 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Each claim recites functional descriptive

material embodied on a machine-readable medium. Since Applicant's specification

defines the term "machine-readable medium" to include such intangible forms as carrier

waves (see Specification, paragraph 49), the claims encompass non-statutory subject

matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1, 3-7, 10-12,15, 22, 24-27, 28, 30-34, 37-39, 42, 49, and 51 are rejected

under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,088,803 to Tso.

As per claims 1, 3-7, 10, 22, 25, 28, 30-34, 37, and 49, Tso discloses a virus-

checking system that may be implemented on a non-proxying system such as a router

(see column 2, lines 33-36) wherein a transmission between a protected host and an

external host is screened for viruses. While most of the contents of a file being

transmitted is passed through to its destination, a portion (i.e. a packet) of a file, such as

the last few bytes (the final packet) being requested is withheld from the destination until

the virus checker has been completed successfully; a working copy of the transmitted

portions is maintained and analyzed for viruses. If a file is disallowed, the partial file is

discarded and the transmission terminated, causing the destination to discard any

accumulated packets. Virus checking is performed both as respective portions are

received and when the end of file notification is detected, either resulting in termination

upon failure (see column 3, lines 11-67). Since viruses comprise functional descriptive

material, they must necessarily reside in the payload of packets, rather than the

packets' headers; therefore, Tso's packet filter scans packet payloads. Tso further

discloses that data found to be unacceptable is to be discarded. Any program that is

executed on a computer is inherently embodied on a machine-readable medium.

As per claim 11, 24, 38, and 51 the virus-checking algorithm checks the payload

against a list of disallowed content (see column 5, lines 14-19).

As per claims 12, 15, 39, and 42, measures are taken to ensure that the

connection is maintained during analysis by deliberately increasing transmission latency

during analysis (see column 4,lines 3-49).

Regarding claims 26 and 27, buffered data is inherently stored in some sort of

memory.

7.   Claims 1, 2, 25, 28, and 29 are rejected under 35 U.S.C. 102(b) as being

anticipated by U.S. Patent No. 6,119,236 to Shipley.

As per claims 1 and 25, Shipley discloses the use of an INSD, which monitors

and controls datastreams passing through a firewall (i.e. a packet filter) which is not

disclosed as using proxying. Connections run between external hosts (outside the

firewall) to protected hosts (inside the firewall) (see column 5, lines 24-31). Analysis is

performed on all packets going through the firewall (see column 5, lines 44-57). All

packets go through the firewall as long as the INSD does not intervene. Since an inactive connection is incapable of transmitting packets, it is inherent that the forwarding of allowed packets happen only for as long as the connection is active. In the event that the INSD determines a packet should be disallowed, disclosed reactions include the severing or resetting of the connection. The resetting of a connection results in re-initialization of applicable status and buffer fields, leading to a discard of all pending packets (see column 8, lines 4-29).

Regarding claim 2, Shipley discloses that the INSD performs an analysis of port accesses by incoming process (see column 5, line 58 to column 6, line 46). Since this can only be determined by examining the destination port address of a packet, which is in the packet header, it is inherent that packet headers must be examined in the analysis.

As per claims 28 and 29, the code is stored and executed from a machine-readable medium (see column 4, lines 41-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 8, 9, 17, 18, 21, 23, 35, 36, 48, and 50 are rejected under 35

U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,088,803 to Tso in view of

U.S. Patent No. 6,119,236 to Shipley.

Regarding claims 8, 9, 23, 35, 36, and 50, Tso does not disclose the checking of

a packet's header.

Shipley discloses the checking of the destination's address, which requires ana

analysis of the header, leading to a disconnection upon a rejection, as described above,

and further suggests that there is a need to detect attempts to contact "rogue"

computers in a network (see column 3, lines 32-36), which can only be done by address

scanning.

Therefore, it would be obvious to one of ordinary skill in the art at the time the

invention was made to implement the invention of Tso by scanning destination

addresses in headers, as disclosed by Shipley, as there is a need to detect attempts to

contact "rogue" computers in a network.

Regarding claims 17, 18, 21, 44, 45, and 48, Tso discloses that scans are

performed on all received portions, so the first packet/block received would be scanned

by the invention of Tso and Shipley, leading to the passing of the packet or termination,

as appropriate.

Allowable Subject Matter

9.   Claims 13, 14, 16, 19, and 20 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

10.   Claims 40, 41, 43, 46, and 47 would be allowable if rewritten to overcome the

rejection under 35 U.S.C. 101 set forth in this Office action and to include all of the

limitations of the base claim and any intervening claims.

11.   The following is a statement of reasons for the indication of allowable subject

matter:

        Regarding claims 13, 19, 40, and 46, the connection maintenance techniques

disclosed by Tso do not include the further fragmenting of received portions. The

closest art, U.S. Patent No. 6,178,448 to Gray et al., discloses the trickling of packets in

order to maintain connections, but the reason for doing so is to keep at least some

traffic moving through each of the links in a system multiplexing among several lossy

connections; this reasoning is not applicable to Tso and Shipley's invention, which

simply are trying to compensate for a long delay, and therefore one skilled in the art

would lack motivation to modify Tso or Shipley as per Gray's teaching.

        Regarding claims 14, 20, 41, and 47, no art could found found that would

suggest the re-transmitting of the last packet in order to keep a connection open.

        Regarding claims 16 and 43, though packets generally contain authentication

information that allows their receiver to verify their correctness, no art could be found

that would motivate one skilled in the art to have the virus-screener add additional

information to validate intermediate packets before the file was fully accepted by the

virus-screening system.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

13.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew E. Heneghan, whose telephone number is

(571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30

AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gilberto Barron, can be reached at (571) 272-3799.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
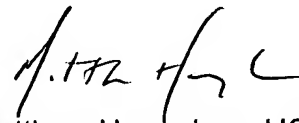Alexandria, VA 22313-1450
Or faxed to:
(571) 273-3800

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (571) 272-

2100.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

MEH

December 15, 2006   Matthew Heneghan, USPTO Art Unit 2134